Project Management Planning

Planning Process & Project Plan	Initial Release 1.0 Date: January 1997

What is Project Planning?

Project planning defines the project activities and end products that will be performed and describes how the activities will be accomplished. The purpose of project planning is to define each major task, estimate the time and resources required, and provide a framework for management review and control. The project planning activities and goals include defining:

- The specific work to be performed and goals that define and bind the project.
- Estimates to be documented for planning, tracking, and controlling the project.
- Commitments that are planned, documented, and agreed to by affected groups.
- Project alternatives, assumptions, and constraints.

The planning process includes steps to estimate the size of the project, estimate the technical scope of the effort, estimate the resources required to complete the project, produce a schedule, identify and assess risks, and negotiate commitments.

Repetition of these steps is necessary to establish the project plan. Typically, several iterations of the planning process are performed before a plan is actually completed.

Importance of the Project Plan

> **What is a Project Plan?**
>
> **A project plan is a formal, approved document that is used to manage and control a project.**

The project plan forms the basis for all management efforts associated with the project. It is a document that is also expected to change over time.

The project plan documents the pertinent information associated with the project; it is not a verbose textual document. A template for a project plan is provided in this documentation. The information associated with the plan evolves as the project moves through its various stages and is to be updated as new information unfolds about the project.

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Steps in the Planning Process

The planning process consists of the following basic tasks:

- Define the technical approach used to solve the problem.
- Define and sequence the tasks to be performed and identify all deliverables associated with the project.
- Define the dependency relations between tasks.
- Estimate the resources required to perform each task.
- Schedule all tasks to be performed.
- Define a budget for performing the tasks.
- Define the organization used to execute the project.
- Identify the known risks in executing the project.
- Define the process used for ensuring quality.
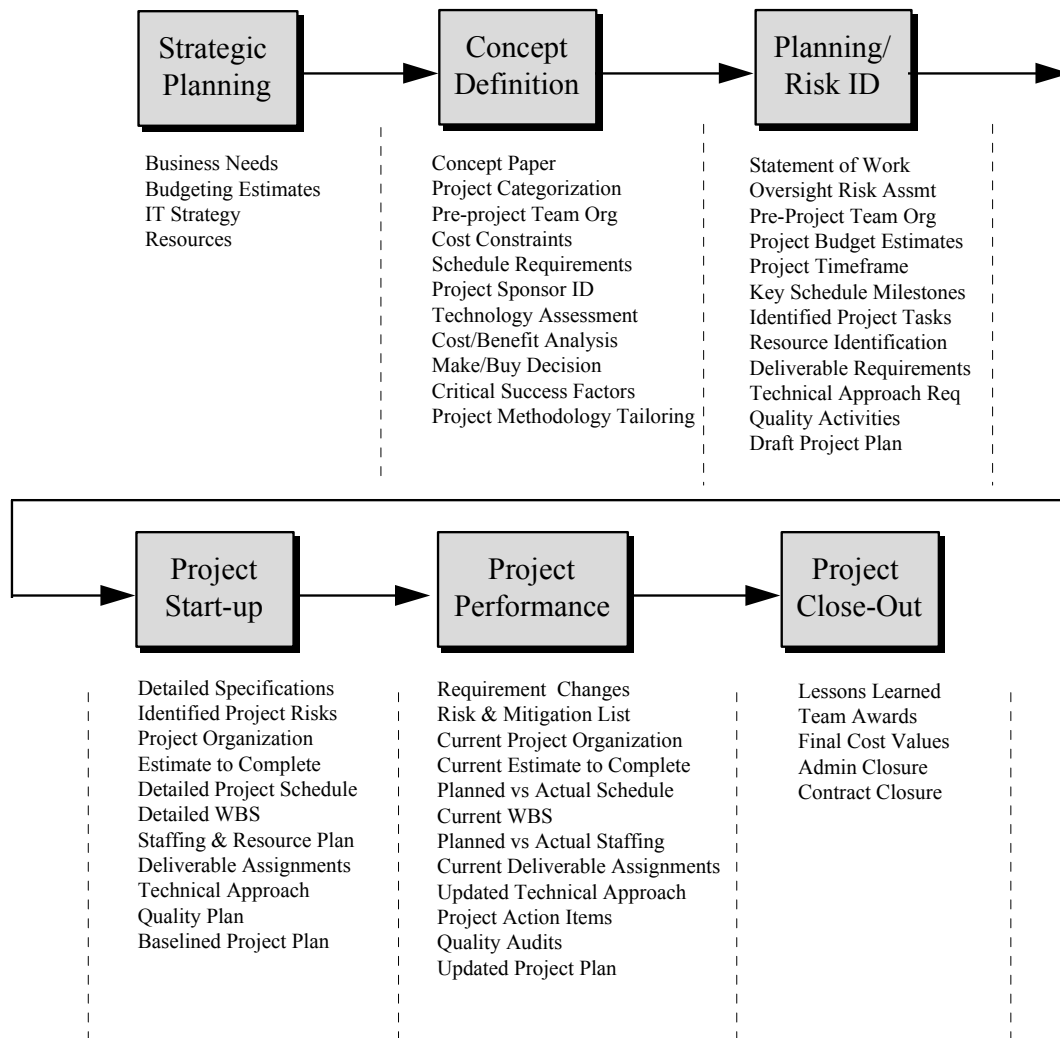- Define the process used for specifying and controlling requirements.

These tasks are described in subsequent sections and each process is defined within the Project Plan Template. The project plan represents the basic tool for successfully executing a project. The following figure depicts the evolutionary nature of the project plan.

Project Management Planning

The Evolving Plan

Strategic Planning	Concept Definition	Planning/ Risk ID

Business Needs
Budgeting Estimates
IT Strategy
Resources

Concept Paper
Project Categorization
Pre-project Team Org
Cost Constraints
Schedule Requirements
Project Sponsor ID
Technology Assessment
Cost/Benefit Analysis
Make/Buy Decision
Critical Success Factors
Project Methodology Tailoring

Statement of Work
Oversight Risk Assmt
Pre-Project Team Org
Project Budget Estimates
Project Timeframe
Key Schedule Milestones
Identified Project Tasks
Resource Identification
Deliverable Requirements
Technical Approach Req
Quality Activities
Draft Project Plan

Project Start-up	Project Performance	Project Close-Out

Detailed Specifications
Identified Project Risks
Project Organization
Estimate to Complete
Detailed Project Schedule
Detailed WBS
Staffing & Resource Plan
Deliverable Assignments
Technical Approach
Quality Plan
Baselined Project Plan

Requirement Changes
Risk & Mitigation List
Current Project Organization
Current Estimate to Complete
Planned vs Actual Schedule
Current WBS
Planned vs Actual Staffing
Current Deliverable Assignments
Updated Technical Approach
Project Action Items
Quality Audits
Updated Project Plan

Lessons Learned
Team Awards
Final Cost Values
Admin Closure
Contract Closure

The plan defines the objectives of the project, the approach to be taken, and the commitment being assumed. The project plan evolves through the early stages and, by the time the project is ready to begin project execution, contains the detail required to successfully complete the project. Then, when implementation begins, the plan is updated as required.

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Planning in the Concept Phase

In the project's concept phase, a need that would result in a product is identified. While only very general information may be known about the project at this time, it is important to capture this information for the planning phase. In this stage, the focus of planning is on the project definition and on getting the project underway. A strategy for deriving a solution to the stated goals is important at this point. The problem being addressed by the project is clearly stated; the project goals and objectives are identified; and success criteria for the project are documented. Also, the assumptions, constraints, and risks that apply to the project are defined. Without a description of this concept information, the completed project plan is difficult to thoroughly understand. Results of the technology assessment also are documented as a precursor to the technical approach that is later defined.

Further information on the Concept and Definition of a project is provided in other sections of the methodology.

Planning in the Planning Stage

The project plan is completed in the Project Planning and Risk Identification stage of a project. For large projects, this stage may be run as a mini-project, with a team of people dedicated to performing the effort. For very small projects, the plan may be developed by a group of people as a part-time job. Since various skill sets are required to complete a successful project plan, it is a difficult task for one person to develop the entire plan.

During this project stage, details of the plan are determined and an approach is defined. The full project plan is then developed. The plan may include the following elements: a brief project summary, a work breakdown structure, a project organization chart, a schedule, an approach, a list of identified risks, an estimated budget and cost, a list of deliverables, a description of planned quality activities, a description of the configuration management process to be used, and a summary of project requirements.

Even during the planning stage, the development of the project plan is an iterative process. Each element of the plan is regularly revisited for changes and refinements, based upon further analysis and decisions made in developing other plan elements. This refinement also develops "buy-in" from the project team and stakeholders.

It is critical to get buy off on the project plan from the involved parties prior to actually starting the project. Approval of the plan commits the resources needed to perform the work.

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Planning in the Project Start-up Stage

To transition a project from the initial conceptualization and planning to execution requires some type of "start-up" activities. The project start-up stage is typically a short period that transitions a project from the planning to the execution stage. In the start-up stage, the team is assembled and a kickoff meeting is held to familiarize the team with the elements of the plan and the requirements of the system. Specific work packages detail and specify the activities being performed by the teams, as well as the cost and schedule associated with those activities.

Sometimes, particularly in systems that include procurement, there may be a need to update the project plan during this stage to reflect negotiations or refinements in scope that occurred prior to the actual start of the project. In these cases, the plan is reviewed and updated prior to presentation to the team.

Also, in some projects, auxiliary plans (such as the configuration management or quality assurance plans) are detailed in the start-up phase. These plans are developed from strategies defined in the project planning stage.

Planning in the Project Execution Stage

Planning in the project execution stage consists of replanning when it is determined that the project is not on track with the current plan. This might occur for a variety of reasons. It is very important to know that project plans will change and that replanning is a natural part of the planning process. Replanning does not necessarily mean that a project is in trouble. Frequent and extensive replanning may, however, indicate that there are some serious issues with the project plan. It is better to replan than to simply throw away the original plan and operate without a plan.

Activities associated with the project execution stage are described in detail in the *Project Execution* section of the methodology.

Planning in the Project Close-Out Stage

A close-out process is performed once the project objectives have been met. Closing a project should be fairly routine. The first step is acceptance of the system by the users. It is important that the user decides when the project is completed. The determination is based upon the success criteria defined in the very early concept and planning stages of the project. This acceptance may be very informal or it may be very formal and depends upon the criteria defined in the plan.

Project Management Planning

A lessons-learned session can be a valuable release for team members of both successful and unsuccessful projects. Questions include:

- **Did the delivered product meet the specified requirements and goals of the project?**

- **Was the client satisfied with the end product?**

- **Were cost budgets met?**

- **Was the schedule met?**

- **Were risks identified and mitigated?**

- **Did the project management methodology work?**

- **What could be done to improve the process?**

Once the project is accepted, all deliverables and project metrics are placed in an archived repository. Building a repository of past projects serves as both a reference source for estimating other efforts and as a training tool for project managers. The specific information archived for a project varies from state organization to state organization, but it always includes the project plan history, any metrics collected on the project, and a record of lessons learned.

Celebrating the success of completing a project recognizes the project team's efforts. The recognition may be formal or informal, depending upon the culture and guidelines of the state organization.

The template for a Project Management Plan, in Microsoft Word format, is included in Appendix B: *Templates & Sample Forms*.